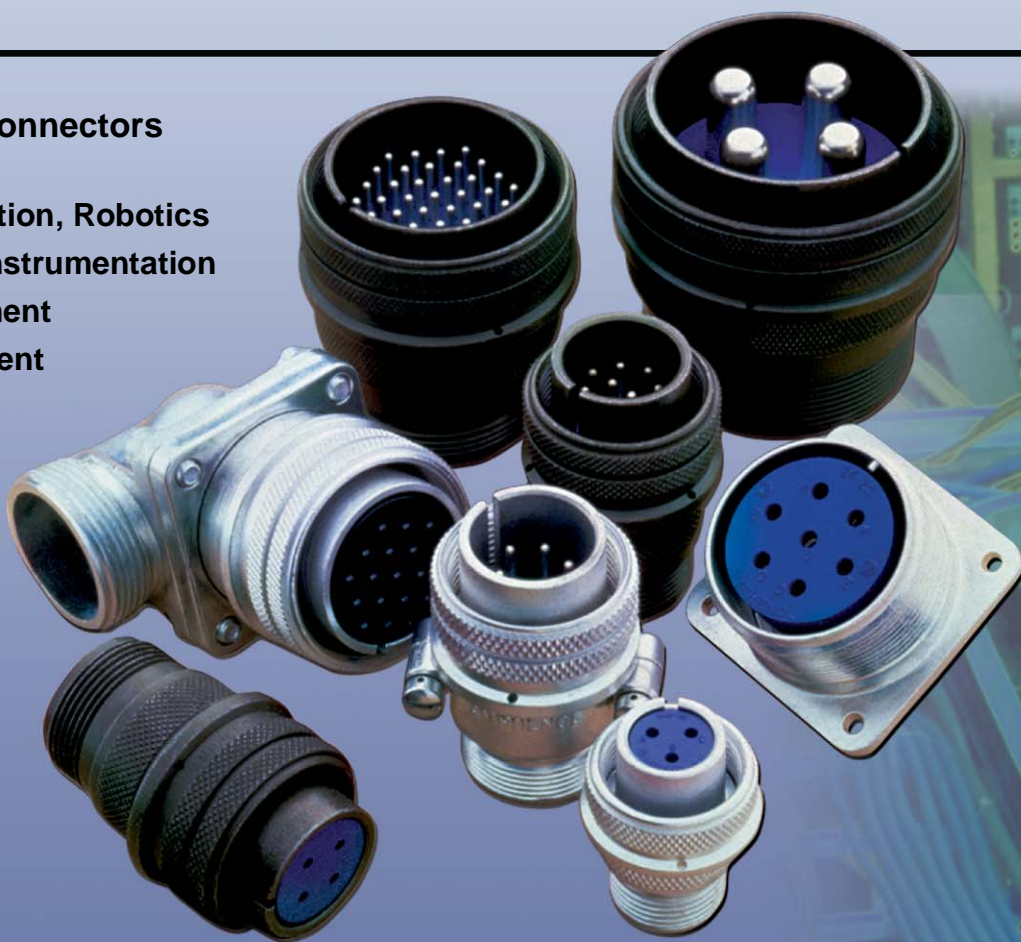
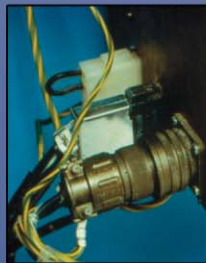


Amphenol® 97 Series Standard Cylindrical Connector

12-022-14

MIL-5015 Style Connectors
widely used for:

- Factory Automation, Robotics
- Machine Tool, Instrumentation
- Welding Equipment
- Medical Equipment



Amphenol® 97 Series Connectors are
UL recognized and CSA recognized.

Amphenol

97 series crimp type how to order

Example of part number for crimp type connectors is given below.

97 - 4101 A - 28 - 21 S Y (621)

Series Number
97 - designates AMPHENOL 97 Series

Shell Type
4100 Wall Receptacle
4101 Cable Receptacle
4102 Box Receptacle
4106 Straight Plug
4107 Quick Disconnect Plug
4108 Angle Plug

Note: "4" in part number designates crimp contact rear release connector

Shell Construction
A - Solid Backshell
B - Split Backshell


Shell Size
10SL, 12S, 14S, 16S, 18, 20, 22, 24, 28, 32, 36

Insert Configuration Number
See insert availability listing - page 21, and see insert arrangement illustrations - pages 22 and 23.

Shell Finish Suffix
Omit for standard O.D. cadmium finish
(604) Gray anodized
(608) Black anodized
(624) Green zinc alloy
(639) Clear cadmium
(640) Conductive black zinc alloy
(689) Electroless nickel

OR

RoHS Compliant Suffix
(621) Black zinc alloy plating



Alternate Insert Positions
Omit for standard position
W, X, Y or Z for alternate positions, depending on insert (see page 21 for positions available)

Contact Type*
P = Pin
S = Socket

* Contacts are not supplied with connectors, and must be ordered separately. See following pages for contact information.

Note:
Accessories for 97 Series Connectors should be ordered with matching connector plating. See accessory pages 33-39.

Amphenol® 97 Series Connectors

provide the interconnection solution for low cost, general duty applications

Amphenol offers the 97 Series Connector Family - A general duty standard cylindrical connector, MIL-5015 style.

The 97 Series is a widely used connector series for the automotive, robotics, machine tool and welding industries, as well as numerous other commercial applications from heavy equipment to ECG monitoring cables.

Shell components are fabricated from high grade aluminum alloy to provide strength and environmental protection. This family of connectors offers a wide variety of shell styles, contact patterns and accessory options.

The Amphenol® 97 Series design features and benefits:

- **Low cost, general duty non-environmental**
- **Environmental capability with the 417 suffix plus 9767 cable clamp (see page 34)**
- **Solder or crimp termination**
- **UL Recognized, CSA Recognized**
- **Wide selection of shell styles and insert patterns**
- **Wide selection of connector finishes - cadmium or non-cadmium (environmentally friendly zinc alloy)**
- **Threaded coupling, hard dielectric inserts**
- **Solid or split shell construction**
- **Accessories for both individual wire seal and jacketed cable**



RoHS COMPLIANT PRODUCT AVAILABLE – Consult Amphenol Industrial Operations.



For additional information on Amphenol® 97 Series connectors, or for special application requirements, contact your local Amphenol sales office, authorized distributor, or -

Amphenol Corporation
Amphenol Industrial Operations
40-60 Delaware Avenue
Sidney, New York 13838-1395
Telephone: 607-563-5011
Fax: 607-563-5157

Web site: www.amphenol-industrial.com

Guide to Selecting a Connector

In selecting a connector, it first must be determined if a non-environmental 97 A or B Series 5015 type is required or if an environmental MS-5015 Class E, F, or R type* is required.

If determined that the general duty, non-environmental 97 series is the choice - then this catalog is appropriate to your needs

The following 8 steps apply to formulation of a part number.**

1 How many wires are you going to connect? What gauge?

These two questions are important, because they indicate which insert you need. There are literally hundreds to choose from.

The insert arrangements for solder contact connectors are illustrated on pages 6-11. The inserts most often used are highlighted on these pages.

Here's an example of how to choose an insert arrangement. Say you want to connect eight 16-ga. wires, - first find the section of arrangements containing 8 contacts. Insert number 20-7 is the one you want because it contains eight 16-ga. contacts and it is one of the most often used. The one you choose might depend on your space or voltage requirements. The voltage capacity of each insert is listed under its diagram.

If you have more than one wire size to connect, the method is essentially the same. Actually, the insert configurations for multiple-size wires are a lot more flexible than they appear. That's because you can always solder a smaller wire to a larger contact. However, soldering a large wire to a small contact isn't recommended because of size and current requirements.

2 What if several identical connectors have different functions?

Here's a situation to watch out for. You have four identical receptacles on a panel. One carries high current loads.

The others have low current functions. A plug mated with the wrong receptacle (cross-mating) could ruin your valuable equipment.

To avoid cross-mating, you can order identical inserts positioned in both the plugs and receptacles at various angles from standard. These variations from standard position are called alternate insert positions, and are described on page 12.

3 What kind of receptacle do you need?

For Wall Mounting Use a wall receptacle, type 3100. The elongated back of this receptacle extends through thick wall material. It is threaded to accept standard hardware fittings.

For Unmounted Applications Use the cable receptacle, type 3101.

For Box or Panel Mounting Use the box receptacle, type 3102. This receptacle's back is short to conserve space. It is not threaded on the back end and is used when no accessories such as clamps are needed.

4 What kind of plug do you need?

For ordinary situations The straight plug, type 3106 meets most connector requirements. However . . .

when space is critical you may want to consider using an angle plug, type 3108. This type plug lets the cable enter your equipment at a right angle.

5 Do you need a plug with a Solid or Split back shell?

You can get both straight and angle plugs in solid or split back shell designs. With the solid shell you have greater strength and you save space. On the other hand, the split shell design lets you quickly inspect the solder terminals when you need to. This feature could be important if you'll be subjecting the connector to rough handling and heavy use.

The designation to use for solid shell construction is the letter A. This designation letter goes immediately

after the main shell type number: for example, 3106A or 3108A.

The designation for split shell construction is the letter B; for example, 3106B or 3108B.

Because of application, receptacles are made in solid backshell construction only. Their designation is 3100A, 3101A. (See how to order for solder contact connectors, page 19.)

6 Which connector gets the socket? - the receptacle or the plug?

You're at the point where you designate which inserts are used with which shells. Either pin or socket inserts can be used with plugs or receptacles.

Here's a good rule of thumb. Order the sockets for the connector at the "hot" side of the circuit. By having sockets at the power source, there's little chance that a wayward finger or screwdriver will short the circuit or cause personal injury.

The designation for sockets is simply S in a part number, following the insert code number. For pins, the designation is P. Therefore, the 20-7P insert would have pin contacts, while the 20-7S insert would have socket contacts.

7 What type of plating is preferred?

If you prefer the standard olive cadmium, non-reflective, electrically conductive finish, then no suffix number is required. Other plating variations are available, including environmentally friendly zinc alloy. See how to order instructions for the various plating finishes offered for 97 Series solder connectors on page 19.

8 Do you need any accessories?

Accessories - cable clamps, protection caps and chains, conduit adapters, and panel gaskets are shown on pages 33-39.

* If an environmental type MIL-5015 E, F or R Class is required, then the catalog that should be consulted is 12-020, MS/Standard MIL-5015 Cylindrical Connectors. See www.amphenol-industrial.com for on-line catalogs or contact Amphenol, Sidney, NY.

** These steps are for solder type connectors which are described in detail on pages 3-19. If a crimp type connector is needed, the same steps apply, however, you should consult pages 20-29 for details on 97 Series connectors with crimp contacts.

Amphenol® 97 Series Connectors with rear release crimp contacts



DESIGN CHARACTERISTICS

- Rugged metal shell
- Conductive finish
- Stamped & formed crimp contacts
- Closed entry socket contacts
- Plastic retention
- Utilizes standard 97 Series hardware
- Intermateable and intermountable with existing 97 Series and MIL-5015 connectors
- Underwriters Laboratories approved recognition File E115497
- Canadian Standards Association Certification File LR69183

CUSTOMER OPTIONS

- Positive self-centering of contacts; pins bent up to 20° will pick up
- Reduced user cost due to high speed termination
- Less equipment down-time due to fatigue failure at wire contact junction or handling damage
- Greater contact to contact insulation, lighter weight, higher reliability
- No costly re-design or rework necessary on existing equipment
- Complete flexibility through multi-source product availability

The Amphenol 97-410X connector design incorporates Poke Home® Rear Release contacts. The 97 Series Rear Release line is intermateable and intermountable with existing 97 Series and MIL-5015 type shell styles in both plugs and receptacles. The connectors utilize 97 Series bright cadmium plated shells and standard insert configurations.

The connector is designed to be used with stamped and formed type crimp contacts. Contact design (size 16 only) incorporates insulation crimp support for greater strength at wire termination end. Contacts are available on reel assemblies for use with the high speed Amphenol strip-er crimper capable of crimping 1500 contacts per hour. Hand crimp tools and bulk packaged contacts are also available.

Standard hardware available for the 97 Series connector can be used with the 97 Series crimp contact rear release line. Accessories should be ordered with the appropriate deviation number to match the bright cadmium connector finish. See how to order, page 27, for 97 Series connectors with crimp contacts.

97 series crimp type specifications, insert availability, alternate insert positioning

Specifications

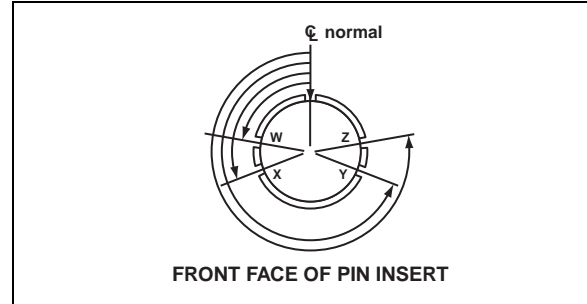
Standard shell finish - clear chromate over cadmium plate (optional plating available, see how to order page 27).

Inserts - molded of a 94V-O Underwriters Laboratory rated material.

Contacts - copper alloy formed, silver plated (gold plating is also available, see how to order page 28).

Wire sizes - 12 AWG through 30 AWG.

All constructions perform satisfactorily from -55°C to +125°C (-67°F to +257°F).



Insert Availability

| Insert Number | Total Contacts | Mechanical Spacing | | Service Rating | Contact Size | |
|---------------|----------------|--------------------|------|----------------|--------------|----|
| | | Inches | mm | | 12 | 16 |
| 10SL-3 | 3 | 1/16 | 1.57 | A | | 3 |
| 10SL-4 | 2 | 1/16 | 1.57 | A | | 2 |
| 12S-3 | 2 | 1/16 | 1.57 | A | | 2 |
| 14S-1 | 3 | 1/16 | 1.57 | A | | 3 |
| 14S-2 | 4 | | | INST. | | 4 |
| 14S-5 | 5 | | | INST. | | 5 |
| 14S-7 | 3 | 1/16 | 1.57 | A | | 3 |
| 16S-1 | 7 | 1/16 | 1.57 | A | | 7 |
| 16S-8 | 5 | 1/16 | 1.57 | A | | 5 |
| 18-1 | 10 | 1/16 | 1.57 | A | | 4 |
| | | | | INST. | | 6 |
| 18-4 | 4 | 1/8 | 3.18 | D | | 4 |
| 18-11 | 5 | 1/16 | 1.57 | A | 5 | |
| 18-12 | 6 | 1/16 | 1.57 | A | | 6 |
| 18-19 | 10 | 1/16 | 1.57 | A | | 10 |
| 18-20 | 5 | 1/16 | 1.57 | A | | 5 |
| 20-4 | 4 | 1/8 | 3.18 | D | 4 | |
| 20-7 | 8 | 1/8 | 3.18 | D | | 4 |
| | | 1/16 | 1.57 | A | | 4 |
| 20-27 | 14 | 1/16 | 1.57 | A | | 14 |
| 20-29 | 17 | 1/16 | 1.57 | A | | 17 |
| 22-14 | 19 | 1/16 | 1.57 | A | | 19 |
| 24-2 | 7 | 1/8 | 3.18 | D | 7 | |
| 28-11 | 22 | 1/16 | 1.57 | A | 4 | 18 |
| 28-12 | 26 | 1/16 | 1.57 | A | | 26 |
| 28-20 | 14 | 1/16 | 1.57 | A | 10 | 4 |
| 28-21 | 37 | 1/16 | 1.57 | A | | 37 |
| 32-414 | 52 | 1/16 | 1.57 | A | | 52 |
| 36-10 | 48 | 1/16 | 1.57 | A | | 48 |

Alternate Insert Positioning

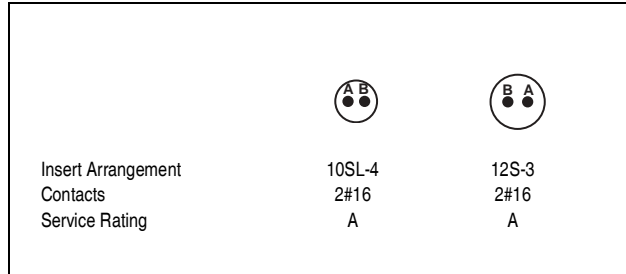
| Insert Arrangement | Degrees | | | |
|--------------------|---------|------|------|------|
| | W | X | Y | Z |
| 12S-3 | 70 | 145 | 215 | 290 |
| 14S-2 | - | 120 | 240 | - |
| 14S-5 | - | 110 | - | - |
| 14S-7 | 90 | 180 | 270 | - |
| 16S-1 | 80 | - | - | 280 |
| 16S-8 | - | 170 | 265 | - |
| 18-1 | 70 | 145 | 215 | 290 |
| 18-4 | 35 | 110 | 250 | 325 |
| 18-11 | - | 170 | 265 | - |
| 18-12 | 80 | - | - | 280 |
| 18-19 | - | 120 | 240 | - |
| 18-20 | 90 | 180 | 270 | - |
| 20-4 | 45 | 110 | 250 | - |
| 20-7 | 80 | 110 | 250 | 280 |
| 20-27 | 35 | 110 | 250 | 325 |
| 20-29 | 80 | - | - | 280 |
| 22-14 | 80 | - | - | 280 |
| 24-2 | 80 | - | - | 280 |
| 28-9 | 80 | 110 | 250 | 280 |
| 28-11 | 80 | 110 | 250 | 280 |
| 28-12 | 90 | 180 | 270 | - |
| 28-20 | 80 | 110 | 250 | 280 |
| 28-21 | 80 | 110 | 250 | 280 |
| 32-8 | 80 | 125 | 235 | 280 |
| 32-414* | 80* | 110* | 250* | 280* |
| 36-10 | 80 | 125 | 235 | 280 |

* Rotates opposite above illustration.

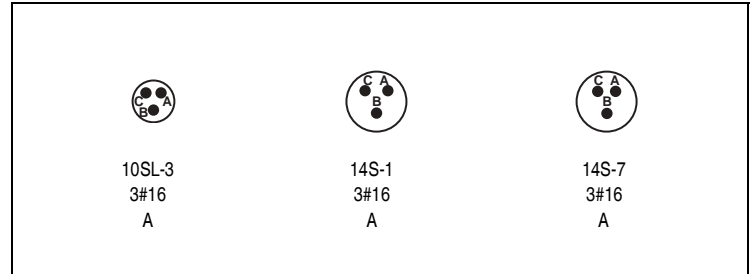
97 series crimp type insert arrangements

Front view of pin insert or rear of socket insert illustrated.

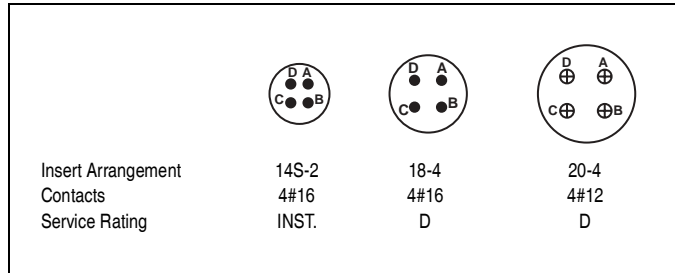
2 Contacts



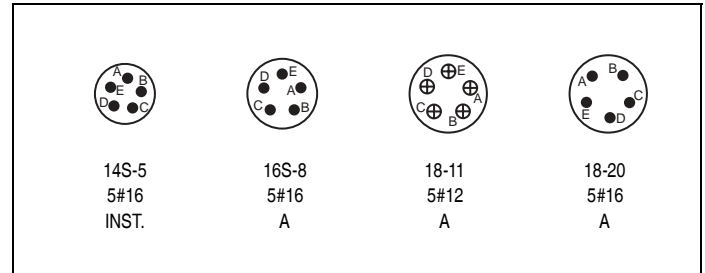
3 Contacts



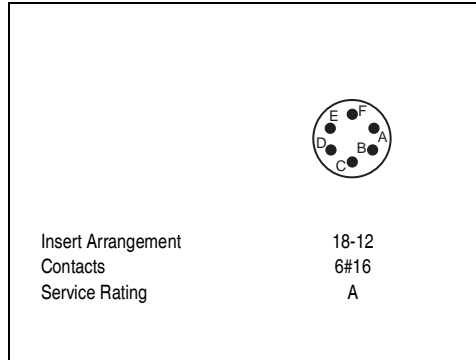
4 Contacts



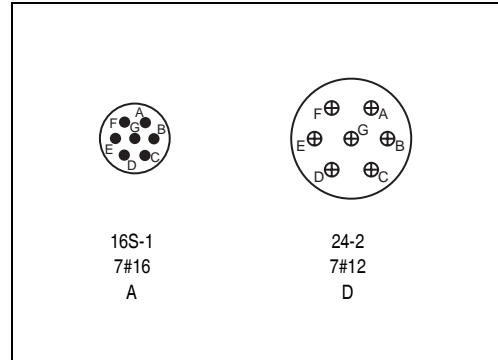
5 Contacts



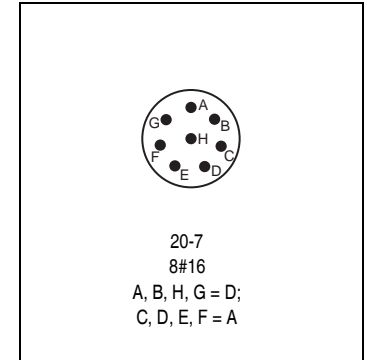
6 Contacts



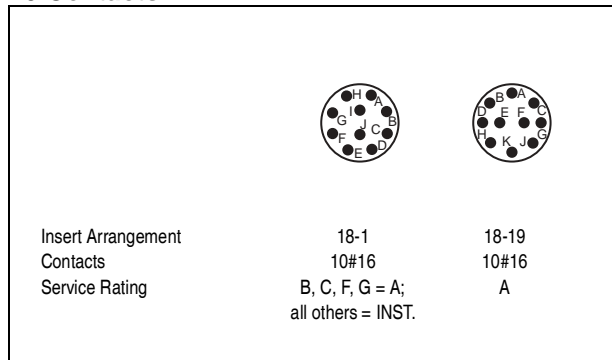
7 Contacts



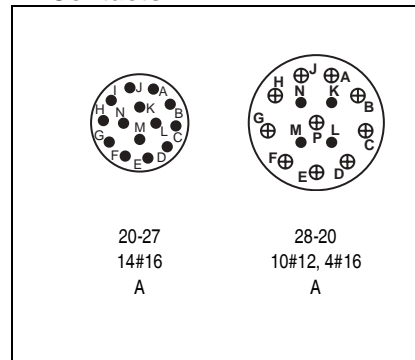
8 Contacts



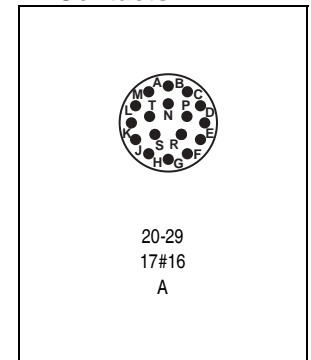
10 Contacts



14 Contacts



17 Contacts



97 series crimp type insert arrangements, cont.

Front view of pin insert or rear of socket insert illustrated.

19 Contacts

Insert Arrangement 22-14
 Contacts 19#16
 Service Rating A

22 Contacts

 28-11
 4#12, 18#16
 A

26 Contacts

 28-12
 26#16
 A

37 Contacts

Insert Arrangement 28-21
 Contacts 37#16
 Service Rating A

48 Contacts

 36-10
 48#16
 A

52 Contacts

 32-414
 52#16
 A

CONTACT LEGEND

| | |
|----|----|
| ● | ⊕ |
| 16 | 12 |

Current Ratings

| | | | | | | | | | |
|-----------|----|----|----|----|-----|----|----|-----|-----|
| Wire Size | 12 | 14 | 16 | 18 | 20 | 22 | 26 | 28 | 30 |
| Amperes | 23 | 17 | 13 | 10 | 7.5 | 5 | 2 | 1.5 | 1.0 |

NOTE: Design specifications subject to change.
 Consult Amphenol, Sidney, NY for the latest specifications
 and UL and CSA recognition.

Service Rating

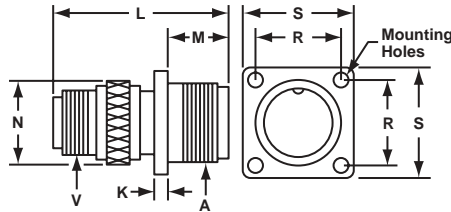
| Service Rating | Recommended Operating Voltage* at Sea Level | |
|----------------|---|----------|
| | DC | AC (RMS) |
| INST. | 250 | 200 |
| A | 700 | 500 |
| D | 1250 | 900 |

* The values listed represent operating values which include a generous safety factor.

97 series crimp type receptacles

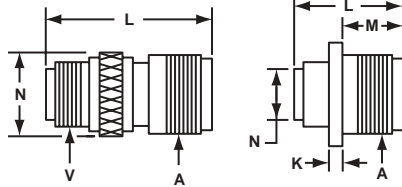
97-4100A wall mount receptacle

Solid shell construction is strong and conserves space. Includes integral polarizing key in front. Back shell is threaded for standard MS/AN fittings.



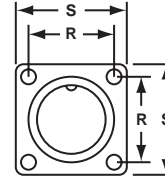
97-4101A cable receptacle

Solid shell construction is strong and conserves space. Includes integral polarizing key in front shell. Machined back shell is threaded for standard MS/AN fittings. Can be unscrewed for inspection or soldering

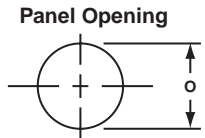


97-4102A box receptacle

Solid shell designed for open wiring. Mounts directly on chassis, equipment or panel. Includes internal polarized key in front shell.



Mounting Holes
 .173 (4.394) DIA.
 FOR SIZE 32 AND 36
 .147 (3.734) DIA.
 FOR SIZES 24 AND 28
 .120 (3.048) DIA.
 FOR ALL OTHER SIZES



97-4100A and 97-4101A

| Connector Size | A Coupling Thread | K Ref. | | L Max. | | M Ref. | | N Ref. | | O Ref. | | R Ref. | | S Ref. | | V Fitting Threads |
|----------------|-------------------|--------|------|---------|-------|--------|-------|--------|-------|--------|-------|---------|-------|--------|-------|-------------------|
| | | Inch | mm | Inch | mm | Inch | mm | Inch | mm | Inch | mm | Inch | mm | Inch | mm | |
| 10SL | 5/8-24 | 5/64 | 1.98 | 1-9/32 | 32.53 | 9/16 | 14.27 | 3/4 | 19.05 | .812 | 20.62 | 23/32 | 18.24 | 1 | 25.40 | 5/8-24 |
| 12S | 3/4-20 | 5/64 | 1.98 | 1-15/32 | 37.29 | 9/16 | 14.27 | 25/32 | 19.84 | .812 | 20.62 | 13/16 | 20.62 | 1-3/32 | 27.76 | 5/8-24 |
| 14S | 7/8-20 | 5/64 | 1.98 | 1-15/32 | 37.39 | 9/16 | 14.27 | 7/8 | 22.23 | .938 | 23.83 | 29/32 | 23.01 | 1-3/16 | 30.15 | 3/4-20 |
| 16S | 1 -20 | 5/64 | 1.98 | 1-15/32 | 37.39 | 9/16 | 14.27 | 1 | 25.40 | 1.062 | 26.97 | 31/32 | 24.59 | 1-9/32 | 32.54 | 7/8-20 |
| 18 | 1-1/8-18 | 1/8 | 3.18 | 1-63/64 | 50.24 | 3/4 | 19.05 | 1-1/8 | 28.58 | 1.188 | 30.18 | 1-1/16 | 26.97 | 1-3/8 | 34.93 | 1 -20 |
| 20 | 1-1/4-18 | 1/8 | 3.18 | 1-57/64 | 47.85 | 3/4 | 19.05 | 1-1/4 | 31.75 | 1.312 | 33.32 | 1-5/32 | 29.36 | 1-1/2 | 38.10 | 1-3/16-18 |
| 22 | 1-3/8-18 | 1/8 | 3.18 | 1-63/64 | 50.24 | 3/4 | 19.05 | 1-3/8 | 34.93 | 1.438 | 36.53 | 1-1/4 | 31.75 | 1-5/8 | 39.67 | 1-3/16-18 |
| 24 | 1-1/2-18 | 1/8 | 3.18 | 2-14 | 57.15 | 13/16 | 20.62 | 1-1/2 | 38.10 | 1.562 | 36.67 | 1-3/8 | 34.43 | 1-3/4 | 44.45 | 1-7/16-18 |
| 28 | 1-3/4-18 | 1/8 | 3.18 | 2-1/4 | 57.15 | 13/16 | 20.62 | 1-3/4 | 44.45 | 1.812 | 46.02 | 1-9/16 | 39.67 | 2 | 50.80 | 1-7/16-18 |
| 32 | 2 -18 | 1/8 | 3.18 | 2-3/8 | 60.33 | 7/8 | 22.23 | 2-1/32 | 51.59 | 2.062 | 52.37 | 1-3/4 | 44.45 | 2-1/4 | 57.15 | 1-3/4-18 |
| 36 | 2-1/4-16 | 1/8 | 3.18 | 2-3/8 | 60.33 | 7/8 | 22.23 | 2-1/4 | 57.15 | 2.312 | 58.72 | 1-15/16 | 49.20 | 2-1/2 | 63.50 | 2 -18 |

97-4102A

| Connector Size | A Coupling Thread | K Ref. | | L Max. | | M Ref. | | N Ref. | | O Ref. | | R Ref. | | S Ref. | |
|----------------|-------------------|--------|------|---------|-------|--------|-------|---------|-------|--------|-------|---------|-------|--------|-------|
| | | Inch | mm | Inch | mm | Inch | mm | Inch | mm | Inch | mm | Inch | mm | Inch | mm |
| 10SL | 5/8-24 | 5/64 | 1.98 | 61/64 | 24.21 | 35/64 | 13.87 | 11/16 | 17.48 | .812 | 20.62 | 23/32 | 18.24 | 1 | 25.40 |
| 12S | 3/4-20 | 5/64 | 1.98 | 31/32 | 24.61 | 9/16 | 14.27 | 11/16 | 17.45 | .812 | 20.62 | 13/16 | 20.62 | 1-3/32 | 27.76 |
| 14S | 7/8-20 | 5/64 | 1.98 | 61/64 | 24.21 | 9/16 | 14.27 | 3/4 | 19.05 | .938 | 23.83 | 29/32 | 23.01 | 1-3/16 | 30.15 |
| 16S | 1 -20 | 5/64 | 1.98 | 61/64 | 24.21 | 9/16 | 14.27 | 7/8 | 22.23 | 1.062 | 26.97 | 31/32 | 24.59 | 1-9/32 | 32.54 |
| 18 | 1-1/8-18 | 1/8 | 3.18 | 1-3/8 | 34.92 | 3/4 | 19.05 | 1 | 25.40 | 1.188 | 30.18 | 1-1/16 | 26.97 | 1-3/8 | 34.93 |
| 20 | 1-1/4-18 | 1/8 | 3.18 | 1-3/8 | 34.92 | 3/4 | 19.05 | 1-1/8 | 28.58 | 1.312 | 33.32 | 1-5/32 | 29.36 | 1-1/2 | 38.10 |
| 22 | 1-3/8-18 | 1/8 | 3.18 | 1-3/8 | 34.92 | 3/4 | 19.05 | 1-1/4 | 31.75 | 1.438 | 36.53 | 1-1/4 | 31.75 | 1-5/8 | 41.28 |
| 24 | 1-1/2-18 | 1/8 | 3.18 | 1-3/8 | 34.92 | 13/16 | 20.62 | 1-3/8 | 34.93 | 1.562 | 39.67 | 1-3/8 | 34.93 | 1-3/4 | 44.45 |
| 28 | 1-3/4-18 | 1/8 | 3.18 | 1-3/8 | 34.92 | 13/16 | 20.62 | 1-5/8 | 41.28 | 1.812 | 46.02 | 1-9/16 | 39.67 | 2 | 50.80 |
| 32 | 2 -18 | 1/8 | 3.18 | 1-15/32 | 37.31 | 7/8 | 22.23 | 1-29/32 | 48.41 | 2.062 | 52.37 | 1-3/4 | 44.45 | 2-1/4 | 57.15 |
| 36 | 2-1/4-16 | 1/8 | 3.18 | 1-15/32 | 37.31 | 7/8 | 22.23 | 2-1/8 | 53.98 | 2.312 | 58.72 | 1-15/16 | 49.20 | 2-1/2 | 63.50 |

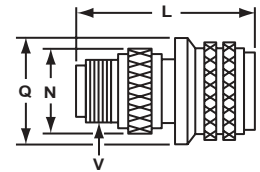
97 series crimp type plugs with solid shells

97-4106A

| Connector Size | L Max. | | N Ref. | | Q Max. | | V Fitting Threads |
|----------------|---------|-------|--------|-------|---------|-------|-------------------|
| | Inch | mm | Inch | mm | Inch | mm | |
| 10SL | 1-3/8 | 34.93 | 3/4 | 19.05 | 7/8 | 22.23 | 5/8-24 |
| 12S | 1-7/16 | 36.50 | 25/32 | 19.84 | 1 | 25.40 | 5/8-24 |
| 14S | 1-15/32 | 37.13 | 7/8 | 22.23 | 1-1/8 | 28.58 | 3/4-20 |
| 16S | 1-15/32 | 37.13 | 1 | 25.40 | 1-1/4 | 31.75 | 7/8-20 |
| 18 | 1-31/32 | 49.88 | 1-1/8 | 28.57 | 1-11/32 | 34.11 | 1 -20 |
| 20 | 1-7/8 | 47.50 | 1-1/4 | 31.75 | 1-15/32 | 37.29 | 1-3/16-18 |
| 22 | 1-31/32 | 49.88 | 1-3/8 | 34.93 | 1-19/32 | 40.46 | 1-3/16-18 |
| 24 | 2-1/4 | 57.15 | 1-1/2 | 38.10 | 1-23/32 | 43.64 | 1-7/16-18 |
| 28 | 2-1/4 | 57.15 | 1-3/4 | 44.45 | 1-31/32 | 49.99 | 1-7/16-18 |
| 32 | 2-3/8 | 60.33 | 2-1/32 | 51.59 | 2-7/32 | 56.34 | 1-3/4-18 |
| 36 | 2-3/8 | 60.33 | 2-1/4 | 57.15 | 2-15/32 | 62.69 | 2 -18 |

97-4106A straight plug

Sturdy, simple to assemble. Coupling ring machined from solid aluminum bar stock for high tensile strength. Mates with all types of MS receptacles. Front shell includes polarizing keyway. Back shell is threaded for standard MS/AN fittings.

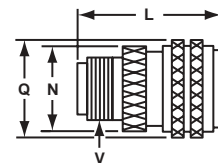


97-4107A

| Connector Size | L Max. | | N Ref. | | Q Max. | | V Fitting Threads |
|----------------|---------|-------|--------|-------|---------|-------|-------------------|
| | Inch | mm | Inch | mm | Inch | mm | |
| 10SL | 1-3/8 | 34.92 | 3/4 | 19.05 | 7/8 | 22.23 | 5/8-24 |
| 12S | 1-7/16 | 36.50 | 25/32 | 19.84 | 1 | 25.40 | 5/8-24 |
| 14S | 1-15/32 | 37.13 | 7/8 | 22.23 | 1-1/8 | 38.58 | 3/4-20 |
| 16S | 1-15/32 | 37.13 | 1 | 25.40 | 1-1/4 | 31.75 | 7/8-20 |
| 16 | 1-7/8 | 47.47 | 1 | 25.40 | 1-1/4 | 31.75 | 7/8-20 |
| 18 | 1-31/32 | 49.88 | 1-1/8 | 28.58 | 1-11/32 | 34.11 | 1 -20 |
| 20 | 1-7/8 | 47.50 | 1-1/4 | 31.75 | 1-15/32 | 37.29 | 1-3/16-18 |
| 22 | 1-31/32 | 49.88 | 1-3/8 | 34.93 | 1-19/32 | 40.46 | 1-3/16-18 |
| 24 | 2-1/4 | 57.15 | 1-1/2 | 38.10 | 1-23/32 | 43.64 | 1-7/16-18 |
| 28 | 2-1/4 | 57.15 | 1-3/4 | 44.45 | 1-31/32 | 49.99 | 1-7/16-18 |

97-4107A quick-disconnect plug

For fast connect/disconnect applications. Front shell has polarizing keyway. Mates with all types of MS receptacles. Back shell is threaded for standard MS/AN fittings.



97-4108A

| Connector Size | L Ref. | | Q Max. | | U Ref. | | V Fitting Threads | Y Ref. | |
|----------------|---------|-------|---------|-------|--------|-------|-------------------|--------|-------|
| | Inch | mm | Inch | mm | Inch | mm | | Inch | mm |
| 10SL | 1-5/16 | 33.32 | 7/8 | 22.23 | 1 | 25.40 | 5/8-24 | 1-1/16 | 26.97 |
| 12S | 1-3/8 | 34.93 | 1 | 25.40 | 1 | 25.40 | 5/8-24 | 1-1/16 | 26.97 |
| 14S | 1-3/8 | 34.93 | 1-1/8 | 28.58 | 1 | 25.40 | 3/4-20 | 1-1/16 | 26.97 |
| 16S | 1-1/2 | 38.10 | 1-1/4 | 31.75 | 1-1/8 | 28.58 | 7/8-20 | 1-5/16 | 33.32 |
| 18 | 1-15/16 | 49.20 | 1-11/32 | 34.11 | 1-1/8 | 28.58 | 1 -20 | 1-5/16 | 33.32 |
| 20 | 2-1/16 | 52.37 | 1-15/32 | 37.29 | 1-5/16 | 33.32 | 1-3/16-18 | 1-5/8 | 42.28 |
| 22 | 2-1/16 | 52.37 | 1-19/32 | 40.46 | 1-5/16 | 33.32 | 1-3/16-18 | 1-5/8 | 42.28 |
| 24 | 2-15/32 | 62.69 | 1-23/32 | 43.64 | 1-1/2 | 38.10 | 1-7/16-18 | 2 | 50.80 |
| 28 | 2-15/32 | 62.69 | 1-31/32 | 49.99 | 1-1/2 | 38.10 | 1-7/16-18 | 2 | 50.80 |

97-4108A angle plug

For use where space in front of panel or wall is at a premium. Swivel ring and plate combination allow cable take off at any angle relative to front shell polarizing key. Back shell is threaded for standard MS/AN fittings.

